

**DETAILED ACTION**

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on February 28, 2008 has been entered.

Upon consideration of the claims, the following rejections are made:

**Claim Rejections - 35 USC § 103**

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 3-7, 9-10, 12, 14-16, and 18-20 are rejected under 35 U.S.C. 103(a) as being obvious over Ichinohe et al. WO 02/03928 (translation: US Publication no. 20030082218A1 – previously presented) in view of Yonekura et al. (US Pat. No. 4,892,726– previously presented), Roidl (EP 0523 911 A2– previously presented) and Wada et al. (US Pat No. 6,534,044– previously presented).

Ichinohe et al. teaches in Example 11, a dimethylpolysiloxane in 24 weight % at 6 mm<sup>2</sup>/sec at 25 C (non-volatile oil agents of instant claims 1a and 5), a trimethylsiloxysilicate in 1 weight % (oil soluble silicone), 1,3-butylene glycol in 2.0

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weight of the composition % (a volatile solvent and a lower alcohol of instant claims 1d and 9; a polyhydric alcohol) or in 0.1 to 98 % by weight of the total cosmetic material, a polyether modified silicon (recited in claim 3), and purified water (recited in claim 4). Pigments are also taught as components in the composition (recited in claim 1e in part). Further, Ichinohe et al. teaches examples of organic powders used in the composition include polymethylsilsesquioxane (water-repellent powders, of instant claims 1b and 6). The amount of the said component in the cosmetic composition ranges from 0.1- 99-weight % to total cosmetic material (page 4, left column, lines 1-15 from top and lines 52-63 from top). Additionally, examples of inorganic powders such as titanium oxide, zinc oxide, and cerium oxide are taught as components of the cosmetic composition. The inorganic and organic powders are formed into complexes or treated with general oils, silicone oils, etc. (page 4, left column lines 1-10 from bottom of page)). Ichinohe et al. teaches that any powder can be mixed into the composition regardless of shape, size, and structure as long as they have hitherto been used in conventional cosmetic materials. The amount of the said components in the cosmetic composition ranges from 0.1- 99 weight % to total cosmetic material (page 3, right column, last 3 paragraphs in entirety and page 4, left column, last paragraph in entirety) (water-repellent surface treated pigment, of instant claims 1e (in part) and 10).

Although, the reference does teach the use of polymethylsilsesquioxane as a component and fluorine-modified silicones, for example fluorine-contained unctuous agent which can also be mixed include perfluoropolyether, perfluoro-decaline, perfluorooctaine and the like in the cosmetic composition, and the use of pigments in

the cosmetic compositions; the reference fails to selectively use polymethylsilsesquioxane, a perfluoroalkyl group-containing polyalkylsiloxysilicate, and surface treated pigments as components of the composition of example 11.

Yonekura et al. teaches the use of polymethylsilsesquioxane powders in 3-5 parts as a component of makeup or cosmetic compositions. Additionally the reference teaches the polymethylsilsesquioxane powders and other cosmetic powdery raw material in cosmetic binder oils. Cosmetic powder raw material include pigments such as zinc, silica, and titanium. Yonekura et al. teaches that the composition may include water, surface active agents, perfume, thickeners, and antiseptics. Yonekura et al. teaches that the polymethylsilsesquioxane powders have "excellent effects of natural color and smoothness upon application" to the skin (column 1 lines 60-65), provide "a moisturized feeling," and more enhance the functions of pigment powders used as cosmetic components in combination therewith (column 2, lines 1-10).

Roidl teaches instead of a silicone emulsion the cosmetic composition of the invention utilized a fluorosilicone fluid which is substantive to the skin. The preferred fluorosilicone fluid any polyfluoroalkylmethylsiloxane, and most preferred is polymethyl-3,3,3-trifluoropropylsiloxane (Claims 1 and 2 column 8).

Wada et al. teaches a cosmetic material comprising silica coated metal oxide particle further surface treated with a hydrophobizing agent. The metal oxide particles include titanium oxide, zinc oxide, cerium oxide, zirconium oxide, and iron oxide. The surface coated metal oxide particles have a primary particle size of 5-120 nm. The metal oxide particles coated with silica (column 3 lines 39-47) are further coated with a

hydrophobizing agent (column 49, claim 1). The amount of the silica-coated metal oxide particles and surface-hydrophobicized silica-coated metal oxide particles in a cosmetic material of the invention is preferably in the range of 1-50 wt % and more preferably 5-30 wt % with respect to the cosmetic material.

It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the silicon resin polymethylsilsesquioxane, polyfluoroalkylmethylsiloxane, and most preferably the polymethyl-3,3,3-trifluoropropylsiloxane, and surface-hydrophobicized silica-coated metal oxide particle into the cosmetic composition because Ichinohe et al. teaches the use of polymethylsilsesquioxane, fluorine-modified silicones for example fluorine-contained unctuous agent which can also be mixed include perfluoropolyether, perfluoro-decaline, perfluorooctaine and the like in the cosmetic, and metal oxides in the cosmetic; Yonekura et al. teaches the use of polymethylsilsesquioxane in a cosmetic; and Roidl teaches the use of the polyfluoroalkylmethylsiloxane, and most preferably the polymethyl-3,3,3-trifluoropropylsiloxane in a cosmetic. The motivation to incorporate the silicon resin polymethylsilsesquioxane, polyfluoroalkylmethylsiloxane, and most preferably the polymethyl-3,3,3-trifluoropropylsiloxane, in the cosmetic composition is because the references teach the polymethylsilsesquioxane, fluorine-modified silicone, in a cosmetic composition and more specifically, because (1) Yonekura et al. teaches that the polymethylsilsesquioxane powders have "excellent effects of natural color and smoothness upon application" to the skin (column 1 lines 60-65), provide "a moisturized feeling," and more enhance the functions of pigment powders used as cosmetic

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components in combination therewith (column 2, lines 1-10); (2) Roidl teaches that the polyfluoroalkylmethylsiloxane, and most preferably the polymethyl-3,3,3-trifluoropropylsiloxane have been employed instead of silicone emulsions because they eliminate the tendency of skin irritation and fluoro-silicones have the advantage of functioning as a moisturizer and form films on the skin which act as a barrier against transepidermal water loss, with the result that the skin tends to be maintained in a softened condition (column 1 lines 30-42); and (3) Wada et al. teaches the surface-hydrophobicized silica-coated metal oxide particle have (1) excellent properties such as suppression of photocatalytic activity (2) "an excellent feel during use," (3) "improvement in the particle fineness and dispersion properties," (4) low phototoxicity" (5) excellent storage stability (6) satisfactory surface properties (moistness, smoothness) when added to cosmetics and (7) high contouring properties (column 1 lines 30-36, column 2 lines 40-45, 63-68, and column 9 lines 20-25). Therefore, a skilled artisan would have reasonable expectation of successfully producing a similar composition with "excellent effects of natural color and smoothness upon application" to the skin (column 1 lines 60-65), provide "a moisturized feeling," and more enhance the functions of pigment powders used as cosmetic components in combination therewith (column 2, lines 1-10); with the advantage of functioning as a moisturizer and form films on the skin which act as a barrier against transepidermal water loss, with the result that the skin tends to be maintained in a softened condition (column 1 lines 30-42); and that has (1) excellent properties such as suppression of photocatalytic activity (2) "an excellent feel during use," (3) "improvement in the particle fineness and dispersion

properties," "low phototoxicity" (4) excellent storage stability and (5) high contouring properties.

Claims 7 and 12 are product by process claims. It is well settled in patent law that product-by-process claims are not limited to the manipulations of the recited steps, only the structure implied by the steps. See MPEP § 2123. The court in In re Thorpe held, "even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." See 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985). In this case, the method of making the composition as claimed does not render structural limitations to the claimed composition. Thus, the processes are not given patentable weight. In claim 7, the formulation of the water-repellent resin powder "in a form of being kneaded with an oil agent, finely crushed by a crusher, or dispersed in water" is not given patentable weight. Also, in claim 12 the formulation "in a mechanically ground form in advance or at the time of production of the cosmetic product" is not given weight.

Ichinohe et al. do not expressly teach the term "water-runability," as recited in claim 14. However, the reference teaches that the composition has a "strong repellency to sweat and water(abstract)." This is viewed equivalent or similar to the recited property of the cosmetic composition, as recited in claim 14. Also, the method of

imparting water-runability on the skin or hair, as recited in claim 16, 18-20, is viewed obvious because the reference teaches the moisture resistant property and its use on the skin or hair ([0016]). In the examiners view, the "water-runability" property of the claimed cosmetic composition and its use are equivalent to that of the reference composition. Therefore, it would have been obvious to one with ordinary skill in the art at the time the invention was made to use the cosmetic composition taught in the prior art with the expectation of successfully producing a similar cosmetic composition with the resulting water-runability and usability properties.

Ichinohe et al. does not specifically teach the coated portion having "three or more of protruding portions having a height of 0.2 um or more per 10 um-length," as recited in claim 15. However, Ichinohe et al. teaches the composition as claimed and therefore the properties of such a claimed composition are viewed obvious. The cosmetic composition requires the same components and the physical properties of the cosmetic composition will therefore be identical. A physical property is inseparable from its composition and because prior art teaches the cosmetic composition, then the properties are also taught by the prior art (In re Spada, 911 F.2d 705, 709, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990) See MPEP 2112.01).

Claims 2 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ichinohe et al. WO 02/03928 (translation: US Publication no. 20030082218A1 – previously presented), Yonekura et al. (US Pat. No. 4,892,726– previously presented), Wada et al. (US Pat No. 6,534,044– previously presented) and Roidl (EP 0523 911 A2)

as applied to claims 1, 3-7, 9-10, 12, 14-15, 16, and 18-20 as above and further in view of Fukuchi (English translation, JP 01211518 A).

Ichinohe et al. does not teach the use of a highly polymerized silicone but does teach the use of a one-end hydrogensiloxane (see page 6 right column text and structural formula) as a component in the cosmetic composition.

Fukuchi teaches the use of a polysilicone of the general Formula I in a hair cosmetic composition. Formula I comprises R1 representing a methyl group or phenyl group and R2 represents a methyl group or hydroxyl group (n represents integer of 3,000-20,000) (see page 1, right paragraph, structural formula I). The reference teaches that the ingredients provide "luster and silkiness onto the hair," "excellent conditioning effects," and sustains these effects over "relatively long periods" (see English translation page 2, bullet 3 lines 1-4).

Both Ichinohe et al. and Fukuchi teach compositions directed to hair compositions. It would have been obvious to one with ordinary skill in the art at the time the invention was made to modify the composition of Ichinohe et al. by adding to the composition the polysilicone of Formula I in Fukuchi. The modification would have been motivated by the teaching in Fukuchi that the polysilicone of Formula I will provide a sustained luster, silkiness, and excellent conditioning effects on the hair. The skilled artisan would have had a reasonable expectation of successfully producing a stable and effective hair cosmetic composition with good moisture resistancy and conditioning effects, because both Ichinohe et al. and Fukuchi teach similar formulations (e.g., hair, creams, emulsions comprising volatile oils, etc.).



Also, the method of imparting water-runability on the skin or hair, as recited in claim 17, is viewed obvious because the reference teaches the moisture resistant property and its use on the skin or hair ([0016]). In the examiners view, the “water-runability” property of the claimed cosmetic composition and its use are equivalent to that of the reference composition. Therefore, it would have been obvious to one with ordinary skill in the art at the time the invention was made to use the cosmetic composition taught in the prior art with the expectation of successfully producing a similar cosmetic composition with the resulting water-runability and usability properties.

Claims 11 and 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ichinohe et al. WO 02/03928 (translation: US Publication no. 20030082218A1 – previously presented), Yonekura et al. (US Pat. No. 4,892,726– previously presented), Wada et al. (US Pat No. 6,534,044– previously presented) and Roidl (EP 0523 911 A2) as applied to claims 1, 3-7, 9-10, 12, 14-15, 16, and 18-20 as above, and further in view of Hayashi et al. (English translation, JP 2000327948A).

Ichinohe et al. does not teach the water-repellent surface treated pigment coated with silica, alumina, or zirconia, and also does not teach the water-repellent surface treated pigment further subjected to water repellent surface treatment.

However, Hayashi et al. does teach the use of a metal compound powder having a metal compound particle on the surface of the metallic oxide or hydroxide particle in a cosmetic composition (see English translation [0002]). Further, Hayashi et al. teaches the powder coated with organosilane (see page 4/55, heading [Problem to Be Solved],

lines 1-13)). Also, the composition is taught to have "outstanding hydrophobic property" (see [0001]).

It would have been obvious to one with ordinary skill in the art at the time the invention was made to modify the Ichinohe composition by incorporating the water repellent surface treated pigment component as motivated by Hayashi et al., because the latter teaches that the coated metal compounds have good hydrophobic properties and are used in cosmetics. Therefore, the skilled artisan would have had a reasonable expectation that the composition would yield a strong water repellency property.

#### **Response to Arguments**

Applicant's arguments filed February 28, 2008 have been fully considered but they are not persuasive.

Applicant argues "The Examiner's finding about distinctness remains part of this record. Thus, Applicant respectfully maintains the position that a generalized motivation to substitute a member of the class of polyfluoroalkylmethylsiloxanes is improper." In response, the Examiner states that the Applicant has acknowledged that the species election requirement mailed May 2, 2007 was withdrawn on August 29, 2007. The general statement that species election requirements are "only made for examination purposes. If the species elected is not found in the prior art then Examiner will continue search to other species claimed" in the Advisory Action mailed on January 9, 2008 was only made to address the Applicant's arguments regarding patentable distinctness and species election requirements. Therefore, Applicants arguments are not persuasive.

Applicants argument that the polymethyl-3,3,3-trifluoropropylsiloxane is not necessarily an oil-soluble silicone resin. Examiner points to the Specification page 11, wherein Applicant defines oil -soluble silicone resins as a group consisting of trimethylsiloxysilicate, polyalkylsiloxysilicate, dimethylsiloxy unit-containing trimethylsiloxysilicate, and perfluoroalkyl group- containing polyalkylsiloxysilicate (trifluoropropyl- modified trimethylsiloxysilicate, etc.). Polymethyl-3,3,3-trifluoropropylsiloxane is a perfluoroalkyl group- containing polyalkylsiloxysilicate (trifluoropropyl- modified) which reads on the oil -soluble silicone resins disclosed in Applicants specification.

The Declaration submitted on February 28, 2008 is herein acknowledged.

However, Examiner finds that it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the polyfluoroalkylmethylsiloxane, and most preferably the polymethyl-3,3,3-trifluoropropylsiloxane into the cosmetic composition because Ichinohe et al. teaches the use of fluorine-modified silicones for example fluorine-contained unctuous agent which can also be mixed include perfluoropolyether, perfluoro-decaline, perfluorooctaine and the like in the cosmetic and Roidl teaches the use of the polyfluoroalkylmethylsiloxane, and most preferably the polymethyl-3,3,3-trifluoropropylsiloxane in a cosmetic. The motivation to incorporate the polyfluoroalkylmethylsiloxane, and most preferably the polymethyl-3,3,3-trifluoropropylsiloxane in the cosmetic composition is because both references teach the fluorine-modified silicone in a cosmetic composition and more specifically, because Roidl teaches that the polyfluoroalkylmethylsiloxane, and most preferably the

polymethyl-3,3,3-trifluoropropylsiloxane have been employed instead of silicone emulsions because they eliminate the tendency of skin irritation and fluoro-silicones have the advantage of functioning as a moisturizer and form films on the skin which act as a barrier against trans-epidermal water loss, with the result that the skin tends to be maintained in a softened condition (column 1 lines 30-42). Therefore, a skilled artisan would have reasonable expectation of successfully producing a similar composition with the advantage of functioning as a moisturizer and form films on the skin which act as a barrier against transepidermal water loss, with the result that the skin tends to be maintained in a softened condition (column 1 lines 30-42). Hence, the Roidl reference teaches the preferable use of polymethyl-3,3,3-trifluoropropylsiloxane instead of silicone emulsions.

Additionally, Applicant submits that the amounts of each component in the formulation is important for imparting a performance of water-runability without temperature dependency to a cosmetic composition. The Declaration does not commensurate in scope because the amount comparison has not been made with respect to the prior art relied upon. More specifically, Example 2 the amounts of components (A) and (D) were increased to an amount outside the range recited in the present invention. However, the prior art teaches the non-volatile oil agent in the claimed range and the volatile solvent in exemplified 2% or 0.1 to 98 % by weight the total cosmetic material. Hence, the overall disclosure in Ichinohe et al. WO 02/03928 (translation: US Publication no. 20030082218A1) would have suggested to the artisan of ordinary skill that the amount of the non-volatile oil agent could have been routinely

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optimized, depending on the desired properties of the final cosmetic product. It would have been obvious to one of ordinary skill in the art at the time the invention was made to optimize the dose range of the compounds by routine experimentation (see 2144.05 11). The motivation to optimize the amounts of the final formulation is because one would have had a reasonable expectation of success in achieving the most desirable outcome. Further, comparative Example 3 teaches components (B) and (C) were not formulated. The prior art teaches both components (B) and (C). Comparative Example 4 teaches the amounts of component (B) were increased to an amount outside the range recited in the present invention. The primary reference teaches a broad range of component (B), however, Yonekura teaches between 3-5 parts (or 3-5 weight percentage) of component (B) are useful in making a cosmetic composition with "excellent effects of natural color and smoothness upon application" to the skin (column 1 lines 60-65), provide "a moisturized feeling," and more enhance the functions of pigment powders used as cosmetic components in combination therewith (column 2, lines 1-10). Example 5 increased the amount of component (c) outside the range recited in the claimed invention. Ichinohe et al. exemplifies the oil-soluble silicone resin in the claimed amount. Furthermore, unless comparison is made with disclosure identical (not similar) with that of the reference, affidavits or declarations comparing applicant's results with those of the prior art have no probative value.

Applicant's argument over claim 2 rejection depends on the validity of the previous arguments which were not found persuasive.

Applicant's argument over claims 11 and 13 rejections depends on the validity of the previous arguments which were not found persuasive.

### **Conclusion**

No Claims are allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Layla Soroush whose telephone number is (571)272-5008. The examiner can normally be reached on Monday through Friday from 8:30 a.m. to 5:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sreenivasan Padmanabhan, can be reached on (571) 272-0629. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/SREENI PADMANABHAN/

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